TABLE OF CONTENTS

ALBRITTON, D. L., *see* Fehsenfeld, F. C. *et al.*

BARKOV, N. I., *see* De Angelis, M. *et al.*

BIGG, E. K., J. L. GRAS, and CHRISTINE EVANS / Origin of Aitken Particles in Remote Regions of the Southern Hemisphere 203

BOLLINGER, M. J., *see* Fehsenfeld, F. C. *et al.*

CARNEY, T. A., *see* Fishman J.

CLARK, DAVID, *see* Robinson, Elmer *et al.*

COKER, G. B., *see* Cox, R. A.

CONRAD, R., *see* Seiler, W. *et al.*

CONRAD, R., *see* Slemr, F. *et al.*

COX, R. A. and G. B. COKER / Kinetics of the Reaction of Nitrogen Dioxide with Ozone 53

COX, R.A., *see* Jones, B. M. R. *et al.*

CRISP, DAVID, *see* Kasting, James *et al.*

DE ANGELIS, M., M. LEGRAND, J. R. PETIT, N. I. BARKOV, YE. S. KOROTKEVITCH, and V. M. KOTLYAKOV / Soluble and Insoluble Impurities Along the 950 m Deep Vostok Ice Core (Antarctica) - Climate Implications 215

DELMAS, ROBERT, *see* Servant, Jean *et al.*

EHHALT, D. H., E. P. RÖTH, and U. SCHMIDT / On the Temporal Variance of Stratospheric Trace Gas Concentrations 27

EVANS, CHRISTINE, *see* Bigg, E. K. *et al.*

FEHSENFELD, F. C., M. J. BOLLINGER, S. C. LIU, D. D. PARRISH, M. McFARLAND, M. TRAINER, D. KLEY, P. C. MURPHY, and D. L. ALBRITTON / A Study of Ozone in the Colorado Mountains 87

FISHMAN, J. and T. A. CARNEY / A One-Dimensional Photochemical Model of the Troposphere with Planetary Boundary-Layer Parameterization 351

FRASER, P. J., M. A. K. KHALIL, R. A. RASMUSSEN, and L. P. STEELE / Troposheric Methane in the Mid-Latitudes of the Southern Hemisphere 125

GRAS, J. L., *see* Bigg, E. K. *et al.*

HASTIE, D. R., *see* Madronich, S. *et al.*

HERRMANN, J. and W. JAESCHKE / Measurement of H_2S and SO_2 over the Atlantic Ocean 111

HOFFMANN, M. R., *see* Munger, J. W. *et al.*

HOLZAPFEL-PSCHORN, A., *see* Seiler, W. *et al.*

HOV, ØYSTEIN / Modelling of the Long-Range Transport of Peroxyacetylnitrate to Scandinavia 187

JACOB, D. J., *see* Munger, J. W. *et al.*

JAESCHKE, W., *see* Hermann, J.

JOHANSSON, C. / Field Measurements of Emission of Nitric Oxide from Fertilized and Unfertilized Forest Soils in Sweden 429

JONES, B. M. R., R. A. COX, and S. A. PENKETT / Atmospheric Chemistry of Carbon Disulphide 65

KASTING, JAMES F., JAMES B. POLLACK, and DAVID CRISP / Effects of High CO_2 Levels on Surface Temperature and Atmospheric Oxidation State of the Early Earth 403

KHALIL, M. A. K., *see* Fraser, P. J. *et al.*

KLEY, D., *see* Fehsenfeld, F. C. *et al.*

KOROTKEVITCH, YE, S., *see* De Angelis, M. *et al.*

KOTLYAKOV, V. M., *see* De Angelis, M. *et al.*

LEGRAND, M., *see* De Angelis, M. *et al.*

LIU, S. C., *see* Fehsenfeld, F. C. *et al.*

MADRONICH, S., D. R. HASTIE, B. A. RIDLEY, and H. I. SCHIFF / Measurement of the Photodissociation Coefficient of NO_2 in the Atmosphere: I. Method and Surface Measurements 3

MADRONICH, S., D. R. HASTIE, B. A. RIDLEY, and H. I. SCHIFF / Calculations of the Temperature Dependence of the NO_2 Photodissociation Coefficient in the Atmosphere 151

McFARLAND, M., *see* Fehsenfeld, F. C. *et al.*

MITRA, S. K., *see* Topalian, J. H. *et al.*

MITRA, S. K., *see* Walcek, C. J. *et al.*

MONTAGUE, D. C., *see* Topalian, J. H. *et al.*

MUNGER, J. W., D. J. JACOB, and M. R. HOFFMANN / The Occurrence of Bisulfite-Aldehyde Addition Products in Fog- and Cloudwater 335

MURPHY, P. C., *see* Fehsenfeld, F. C. *et al.*

PARRISH, D. D., *see* Fehsenfeld, F. C. *et al.*

PENKETT, S. A., *see* Jones, B. M. R. *et al.*

PETIT, J. R., *see* De Angelis, M. *et al.*

POLLACK, JAMES B., *see* Kasting, James F. *et al.*

PRUPPACHER, H. R., *see* Topalian, J. H. *et al.*

PRUPPACHER, H. R., *see* Walcek, C. J.

PRUPPACHER, H. R., *see* Walcek, C. J. *et al.*

QUINTANAR, A., *see* Topalian, J. H. *et al.*

RANCHER, JACQUES, *see* Servant, Jean *et al.*

RASMUSSEN, R. A., *see* Fraser, P. J. *et al.*

RIDLEY, B. A., *see* Madronich, S. *et al.*

ROBINSON, ELMER, DAVID CLARK, and WOLFGANG SEILER / The Latitudinal Distribution of Carbon Monoxide Across the Pacific from California to Antarctica 137

TABLE OF CONTENTS

RODRIGUEZ, M., *see* Servant, Jean *et al.*
ROHATSCHEK, HANS / The Role of Gravitophotophoresis for Stratospheric and Mesospheric Particulates 377
RÖTH, E. P., *see* Ehhalt, D. H. *et al.*
SCHARFFE, D., *see* Seiler, W. *et al.*
SCHIFF, H. I., *see* Madronich, S. *et al.*
SCHMIDT, U., *see* Ehhalt, D. H. *et al.*
SEILER, W., R. CONRAD, and D. SCHARFFE / Field Studies of Methane Emission from Termite Nests into the Atmosphere and Measurements of Methane Uptake by Tropical Soils 171
SEILER, W., A. HOLZAPFEL-PSCHORN, R. CONRAD, and D. SCHARFFE / Methane Emission from Rice Paddies 241
SEILER, W., *see* Slemr, F. *et al.*
SEILER, WOLFGANG, *see* Robinson, Elmer *et al.*
SERVANT, JEAN, ROBERT DELMAS, JACQUES RANCHER, and MARCEL RODRIGUEZ / Aspects of the Cycle of Inorganic Nitrogen Compounds in the Tropical Rain Forest of the Ivory Coast 391
SLEMR, F., R. CONRAD, and W. SEILER / Nitrous Oxide Emissions from Fertilized and Unfertilized Soils in a Subtropical Region (Andalusia, Spain) 159
STEELE, L. P., *see* Fraser, P. J. *et al.*
TOPALIAN, J. H., S. MITRA, D. C. MONTAGUE, A. QUINTANAR, and H. R. PRUPPACHER / On the Scavenging of Organic Gases by Cloud and Raindrops: I. A Theoretical and Experimental Study of Acetaldehyde Absorption and Desorption for Water Drops in Air 325
TOPALIAN, J. H., *see* Walcek, C. J. *et al.*
TRAINER, M., *see* Fehsenfeld, F. C. *et al.*
WALCEK, C. J. and H. R. PRUPPACHER / On the Scavenging of SO_2 by Cloud and Raindrops: I. A Theoretical Study of SO_2 Absorption and Desorption for Water Drops in Air 269
WALCEK, C. J., H. R. PRUPPACHER, J. H. TOPALIAN, and S. K. MITRA / On the Scavenging of SO_2 by Cloud and Raindrops: II. An Experimental Study of SO_2 Absorption and Desorption for Water Drops in Air 291
WALCEK, C. J. and H. R. PRUPPACHER / On the Scavenging of SO_2 by Cloud and Raindrops: III. A Theoretical Study of SO_2 Washout by Rain Falling Through a Pollution Plume 307
Announcement 110
Editorial 1
Index of Key Words 443
Information for Authors 107